



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,961	01/31/2005	Hiroyuki Hanao	05011/LH	6917
1933 7590 07/25/2007 FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 Fifth Avenue 16TH Floor NEW YORK, NY 10001-7708			EXAMINER REICHLE, KARIN M	
			ART UNIT 3761	PAPER NUMBER
			MAIL DATE 07/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,961

Applicant(s)

HANA O ET AL.

Examiner

Karin M. Reichle

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/31/05, 8/16/05, 5/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The combination of claim 5 as now amended is supported by the specification at page 6, lines 15 et seq. The combination of claim 6 is supported by page 5, line 4-page 6, line 5, and page 6, line 15-page 7, line 10.

Specification

Drawings

2. The drawings were received on 1-31-05. These drawings, i.e. Figures 7A-C, are approved. However, see following discussion.

3. The drawings are objected to because in Figures 4 and 9, the cross-section lines should be denoted by Roman or Arabic numerals, not letters. Note also the use of such letters in the description bridging pages 7-8. Figures 9-10 should be labeled PRIOR ART. The text in Figures 7A-C should be avoided, i.e. A1-2, B1-2 and C1-3 should be textually described and referenced by such designation. In Figures 2-3, the combination should be designated by the numeral 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

Art Unit: 3761

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the invention as now claimed in claim 6, see discussion *infra*, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

Art Unit: 3761

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Description

5. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: page 1, second full paragraph, first sentence thereof, page 1, third full paragraph, the paragraph bridging pages 1-2.

6. The disclosure is objected to because of the following informalities: 1) As discussed supra, the cross-section lines in the textual description should be denoted by Roman or Arabic numerals rather than letters. 2) Are the three absorption capability conditions those of the polymer in the article, e.g. see page 6, lines 15-18, or those of the polymer by itself, see, e.g, page 14, lines 13-15. A consistent description should be set forth throughout the application. Note also the tests set forth on pages 14-17 only test the superabsorbent. 3) On page 11, line 1, "fabric" should be --fiber--. 4) On page 13, line 15, "film ," should be --film,--. 5) On page 15, line 4, is the term "Schal" correct? 6) Reference to the inventors on page 15, lines 8-11 should be avoided. 7) A detailed description of the embodiment/combination of claims 5-6 should be set forth in the Detailed Description section.

Appropriate correction is required.

Claim Objections

7. Claims 1 and 4-6 are objected to because of the following informalities: in claim 1, lines 5-6, "uses a...body" should be --includes a non-woven fabric covering the absorbent body-- . Appropriate correction is required.

Claim Language Interpretation

8. It is noted that claim 4 is a product by process claim, see MPEP 2113, i.e. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). The end product of claim 4 is considered to be a topsheet including a non-woven fabric which includes at least a hydrophilic portion. Claim 5 as interpreted recites the absorption rate, the absorption capacity and the moisture blocking value of the super absorbent polymer as determined by the procedures set forth on 14-17 of the instant application, and thus prior to incorporation in the article. It is noted that the claimed invention is the article not the superabsorbent polymer by itself. It is also noted that the chemical composition of the superabsorbent polymer in the article has not been claimed.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Pieper et al '224.

Claim 1: See '224 at col. 19, line 3-col. 20, line 10, i.e. '224 teaches an absorbent article comprising an absorbent body 240 including comprising a pulp fiber and a super absorbent polymer, and a top sheet 230 which is liquid permeable and includes a non-woven fabric covering the absorbent body. '224 further teaches the superabsorbent content is not less than 55% by weight at least with "specific specificity", see MPEP 2131.03, I and II, and '678 at, e.g., col. 20, lines 6-7. '224 also teaches the non-woven having a fiber thickness of not more than 2.0 denier, see, e.g., col. 19, line 13, with "sufficient specificity" and a basis weight of not less than 10g/m², see, e.g., col. 19, line 15, with "specific specificity". The claim also requires a wet strength of the non-woven fabric be not less than not less than 300g/25mm, i.e. 300g/ 2.5cm or 300g/in. It is noted that the claim does not specify in which direction such strength is measured, i.e. machine or cross. While '224 does not explicitly teach such range of wet strengths as claimed, i.e. a range of wet strength with the dimension of g/2.5 cm, it does teach the topsheet non-woven fabric having the same fiber thickness, basis weight and being a spunbonded or meltblown nonwoven as claimed and/or disclosed, see the paragraph bridging pages 10-11 of the instant application, as well as some wet strength, i.e. all materials have a wet strength.

Art Unit: 3761

Therefore, it is the Examiner's first position that there is sufficient factual evidence for one to conclude that such topsheet of '224 inherently includes a wet strength as claimed when tested in a manner similar to the claimed topsheet. See MPEP 2112.01. See also the discussion of these claims with respect to '224, *infra*.

Claim 4: See col. 19, lines 24-26 and the Claim Language Interpretation section *supra*.

Claim Rejections - 35 USC § 102/103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Blaney '452.

See col. 6, lines 65-col. 7, line 26 and col. 8, lines 10-14, and thereby, by incorporation, '678 at the abstract, col. 4, lines 32-52 and col. 5, lines 16-33, i.e. '452 teaches an absorbent article comprising an absorbent body 46 including comprising a pulp fiber and a super absorbent polymer, and a top sheet 37 which is liquid permeable and includes a non-woven fabric covering the absorbent body. '452 further teaches the superabsorbent content is not less than 55% by weight at least with "specific specificity", see MPEP 2131.03, I and II, and '678 at, e.g. Tables VI and VIII and the abstract. '452 further teaches the non-woven having a fiber thickness of not more than 2.0 denier, see, e.g., col. 7, line 10, and a basis weight of not less than 10g/m², see, e.g., col. 7, lines 21-22, at least with "specific specificity". The claim also requires a wet

Art Unit: 3761

strength of the non-woven fabric be not less than not less than 300g/25mm, i.e. 300g/ 2.5cm or 300g/in. It is noted that the claim does not specify in which direction such strength is measured, i.e. machine or cross. While '452 does not teach the range of wet strengths as claimed, i.e. a range of wet strength with the dimension of g/2.5 cm, it does teach the non-woven fabric having the same fiber thickness, basis weight and being a spunbonded nonwoven as claimed and/or disclosed as well as a wet strength within a range of, i.e., at least about 400g/cm in the machine direction and at least about 55g/cm in the cross-direction. Therefore, it is the Examiner's first position that there is sufficient factual evidence for one to conclude that the topsheet of '452 inherently includes a wet strength as claimed when tested in a manner similar to the claimed topsheet, i.e. to arrive at the dimensions g/2.5, see MPEP 2112.01. In any case, i.e. the Examiner's second position, the '452 reference at least recognizes that such is a result effective variable, i.e. a variable which achieves a recognized result, i.e. strength in a direction of the fabric, see MPEP 2144.05, and the general conditions of the claim, i.e. the combination of a fabric with fiber thickness, basis weight and wet strength and an absorbent body with a superabsorbent/pulp ratio. Furthermore, where the general conditions of a claim are disclosed in the prior art, as here, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claim Rejections - 35 USC § 103

13. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newkirk '596 in view of Blaney et al '452 and Meyer et al '603.

See '596 at col. 1, lines 9-31, col. 2, lines 60-62, col. 3, line 56-col. 4, line 42, col. 5, lines 23-25 and Table I, "Tensile Properties (Wet)", i.e. '596 teaches an absorbent article comprising a top sheet which is liquid permeable and includes a non-woven fabric. '596 further teaches the non-woven having a fiber thickness of not more than 2.0 denier, see, e.g., col. 4, line 23, with "specific specificity", a basis weight of not less than 10g/m², see, e.g., col. 5, lines 23-33, with "specific specificity" and a wet strength not less than not less than 300g/25mm, i.e. 300g/ 2.5cm or 300g/in, see, e.g., col. 1, lines 30-31 and Table I, Example 3, with "specific specificity". It is again noted that the claim does not specify in which direction such strength is measured, i.e. machine or cross. The claim further requires such topsheet in combination with a specific absorbent body, i.e. covering an absorbent body comprising a pulp fiber and a super absorbent polymer and the superabsorbent content be not less than 55% by weight. While '596 does teach such as a topsheet, i.e. covering, of an absorbent article such as a diaper and that such articles customarily comprise a layer of absorbent or superabsorbent material covered by a topsheet, it does not teach such topsheet covering such specific absorbent body. However see '452, the portions cited supra in paragraph 12, and '603 at col. 4, lines 29-55, col. 5, lines 23-55 and the Figures which teach absorbent articles with topsheets having similar compositions and properties with an absorbent body/layer as claimed covered thereby. Therefore, to employ an absorbent body as claimed as the absorbent layer covered with the topsheet of '596 would be obvious to one of ordinary skill in the art in view of the teachings of '452 and '603 that such a absorbent layer/body is customarily covered by a topsheet with such properties in absorbent articles and the desire of '596 to employ its topsheet in combination with structures, e.g. an absorbent layer, customarily used in absorbent articles.

Claim 4: See col. 4, lines 37-42, the Claim Language Interpretation section *supra*, and col. 3, lines 64-66, i.e. the topsheet of '596 includes a non-woven with at least a portion thereof which is hydrophilic.

14. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pieper et al '224 in view of Newkirk '596 and Blaney '452.

Claims 1 and 4: See the Examiner's first position set forth in paragraph 10 *supra*. See col. 1, lines 9-31, col. 4, lines 19-41 and col. 5, lines 23-24 as well as Table 1 of '596 and col. 6, line 65-col. 7, line 24 of '452 and the discussion thereof *supra*, i.e. nonwoven topsheets having the same basis weight and fiber thickness also include a wet strength as claimed to provide a topsheet which does not tear. Therefore, i.e. the Examiner's second position, to employ the wet strength as taught by '596 and '452 on the '224 topsheet, if not already, would be obvious to one of ordinary skill in the art in view of the recognition that which would provide a topsheet which does not tear and the desirability of structural integrity in any topsheet including '224.

15. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pieper et al '224, alone, or, in the alternative, in view of Newkirk '596 and Blaney '452.

Claim 5: See discussion of claims 1-4 in paragraphs 10 and 14 *supra*, and the Claim Language Interpretation section *supra*, i.e. the properties claimed in this claims are those of the superabsorbent alone used to make the article not those of the article. While '224 does not teach such specific properties of the superabsorbent, i.e. the absorption capability conditions of an absorption speed of 30cc of artificial urine of 50 seconds or less, an absorbed amount of artificial urine under a pressure of 20g/cm² of 28cc/g or more, and a moisture absorbing blocking rate of 50% or less, it does teach superabsorbent(s) having the same composition as disclosed on page

Art Unit: 3761

10, last full paragraph of the instant application, see, e.g., '224 at col. 5, lines 43-64, and such superabsorbents having certain performance characteristics including rate of absorption, absorbed amount, cost, etc. which are dependent upon the type of superabsorbent used, see, e.g., col. 16, lines 47-62 and the paragraph bridging cols. 22-23, and the ability to be recovered if not applied to the article, see, e.g., the paragraph bridging cols. 16-17 (Note the paragraph bridging pages 16-17 of the instant application), and thereby not only the general conditions of the claim, as best understood, and/or disclosed, i.e. the combination of a fabric with fiber thickness, basis weight and wet strength and an absorbent body with a superabsorbent/pulp ratio, but also that such capabilities are result effect variables, i.e. a variable which achieves a recognized result, i.e. the desired performance characteristics, see MPEP 2144.05 again. Furthermore, where the general conditions of a claim are disclosed in the prior art, as here, it is not inventive to discover the optimum or workable ranges by routine experimentation, if the '224 superabsorbent does not already include such capabilities when tested in a manner similar to Applicant's superabsorbent. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claim 6: See col. 20, lines 11-29, especially lines 19-20, i.e. only fibers either at the bodyside or outer side and a mix of superabsorbent and fiber below or above such, respectively, i.e. a single layer of the pulp fiber and a mixed layer of the pulp fiber and the superabsorbent polymer. Also see col. 21, lines 29-30.


Art Unit: 3761

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karin M. Reichle whose telephone number is (571) 272-4936. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Karin M. Reichle
Primary Examiner
Art Unit 3761

KMR
July 19, 2007